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[GB/GB]; 3 Triangle Cottages, Highgate Road, Forest  
Row, East Sussex RH18 5AZ (GB).

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(74) Agent: **BOOTH, Andrew, Steven**; The Boc Group Plc,  
Chertsey Road, Windlesham, Surrey GU20 6HJ (GB).

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(71) Applicant (*for all designated States except US*): **THE  
BOC GROUP PLC** [GB/GB]; Chertsey Road, Windle-  
sham, Surrey GU20 6HJ (GB).

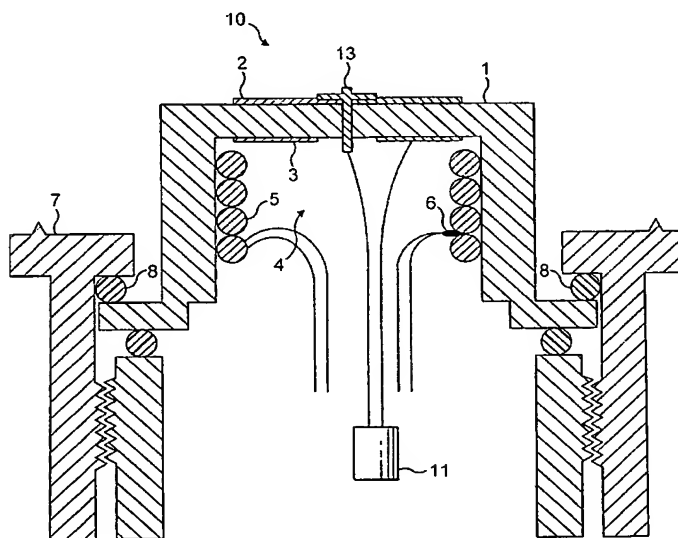
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **GRANT, Robert**,  
Bruce [GB/GB]; Mill House, 126 High Street, Steyning,  
West Sussex BN44 3RD (GB). **DAVIS, Patrick** [GB/GB];  
1 Castle Heights, Dundrum, Newcastle, Co. Down,  
Northern Ireland, BT33 0RY (GB). **HUGHES, Carolyn**

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(54) Title: **ELECTROCHEMICAL SOLID ELECTROLYTE SENSOR FOR THE DETECTION OF OXYGEN, HYDROCAR-  
BONS AND MOISTURE IN VACUUM ENVIRONMENTS**



(57) Abstract: A contaminant molecule sensor for the detection of oxygen, hydrocarbons and humidity comprises an electrochemical cell for use in vacuum. The cell comprises a measurement electrode (2), a reference electrode (3) and a solid-state ionic species conductor (1) bridging the measurement electrode and the reference electrode. The measurement electrode comprises a catalyst selected for its ability to catalyse the dissociation of a contaminant molecule into its ionic species. The reference electrode comprises a catalyst selected for its ability to catalyse the dissociation of a reference molecule into its ionic species. The conductor is selected to conduct an ionic species common to the dissociated contaminant and reference molecules.



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